

The absorption of ...

S/120/62/000/002/004/047
E039/E420

dependence of the transmission on photon energy was measured using a 15 channel γ spectrometer recording electron positron pairs. Good agreement was obtained with theory. It is shown that the transmission increases with energy up to ~ 0.38 at ~ 80 Mev and then remains constant as the energy is increased to 250 Mev. There are 2 figures.

ASSOCIATION: Fizicheskiy institut AN SSSR
(Physics Institute AS USSR)

SUBMITTED: July 6, 1961

Card 2/2

32008

S/089/62/012/001/011/019
B102/B138

24.6730

AUTHOR: Ado, Yu. M.

TITLE: Particle storage in a synchrotron

PERIODICAL: Atomnaya energiya, v. 12, no. 1, 1962, 54-55

TEXT: It is shown that particles can be stored in a synchrotron without altering its construction. The H-field of the one considered is given in the figure. The particle energy fluctuates between E_{\min} and E_{\max} , and at the moment t_2 the particles have smaller amplitudes of phase oscillations than at t_1 and the separatrix dimensions are somewhat reduced. These dimensions are easily varied by amplitude modulation of the h-f field by ΔU , as shown in the figure. To avoid the build-up of phase oscillations by quantum fluctuations, E_{\max} should be smaller than $E_{1/5} = mc^2 \left(\frac{mcR}{\hbar} \right)^{1/5}$,
m - electron rest mass, R - radius of synchrotron orbit. The efficiency of the synchrotron in storage operation can be determined from the radiation

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damping of the phase oscillation amplitudes: With

$$A_2 = A_1 \exp \left[-\frac{1}{2} \int_{t_1}^{t_2} \gamma dt \right].$$

$$\gamma = \frac{2}{3} \frac{e^2}{R^2 mc} \left(\frac{E}{mc^2} \right)^3 \frac{3-4n}{1-n}.$$

and $E = E_{\max} (1 - \cos \omega t) / 2$

$$A_2 = A_1 \exp \left[-\alpha \left(\frac{E_{\max}}{mc^2} \right) \right].$$

$$\alpha = \frac{5}{24} \frac{e^2 \pi}{R^2 mc \omega} \frac{3-4n}{1-n}.$$

is derived. A_1 is the amplitude at t_1 . For an accelerator with $R = 80$ cm, $E_{\max} = E_1/5 = 150$ Mev, $\omega = 314$, $n = 0.6$, one finds $A_2 = 0.883 A_1$. The particles which at t_1 cover a phase area of S_1 will cover S_2 at t_2 . Since the area on the phase plane is proportional to the square amplitude of the phase oscillations, $S_2 = 0.78 S_1$. The number of stored particles is proportional to $S_1 - S_2$. When injection takes place at t_2, t_3, \dots the

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Particle storage in a synchrotron

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amount of particles in the separatrix is raised at every step by about 20 % of those particles which would be captured in the synchrotron with accelerating operation. Coulomb repulsion starts acting only at very high densities. E.g. for 6-10 Mev injection electrostatical defocusing forces become equal to magnetic focusing forces at an orbital current of 10^2 - 10^3 a. This method is applicable to electrons as well as positrons. Professor P. A. Cherenkov, A. Ya. Belyak and K. A. Belovintsev are thanked for discussions. There are 1 figure and 4 Soviet references.

SUBMITTED: July 14, 1961

Card 3/4₃

33901;

S/089/62/012/003/001/013

B102/B108

24.6720
26.2357
AUTHORS: Ado, Yu. M., Belovintsev, K. A., Stolyarov, S. N.

TITLE: Bremsstrahlung spectrum of 260-Mev electrons

PERIODICAL: Atomnaya energiya, v. 12, no. 3, 1962, 193 - 197

TEXT: The bremsstrahlung spectrum of 260-Mev electrons from the synchrotron of the FIAN was measured on a simple arrangement with a 15-channel gamma pair spectrometer of a total dispersion of $3.3 \cdot 10^{-2}$. The efficiency of gamma-quantum recording was $8.25 \cdot 10^{-6}$, radiation intensity was equal to $1.2 \cdot 10^7$ Mev/cm².sec. Experimental error was 5%. The experimental results were compared with the calculated number of photons $N^k(t, k)$ of energy k at a depth t in the target, which in first approximation (error 2 - 3%) is

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Bremsstrahlung spectrum of...

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S/089/62/012/003/001/013
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$$N^*(t, k) \simeq N_s(0, E_0) \sigma_s(k, E_0) t e^{-at} \left\{ 1 + \right. \\ \left. + t \left[0.5a - 0.305 + 0.722 I_1(\eta) + \right. \right. \\ \left. \left. + 0.722 \frac{k}{E_0} \left(\left(1 + \ln \frac{E_0}{k} \right) \ln \ln \frac{E_0}{k} + 1 \right) \right] \right\}. \quad (3) \\ \text{rad} \quad I_1(\eta) = \int_0^\eta t \ln t e^{-t} dt.$$

The bremsstrahlung cross section $\sigma_T(E, k) \simeq 1/k$; $\eta = \ln(E_0/k)$; $n_0^W(t, \eta)$
 $= \int_0^t e^{at'} W(t', \eta) dt'$. E_0 is the energy of the primary electrons. When

multiple photon emission is taken into account, agreement between theory and experiment is improved. The spectrum distortion owing to the collimator effect does not exceed 2%. The material (foil, air, window) through which the gamma ray passes has an influence on the spectrum only in the low-energy range. The discrepancy between experiment and Schiff's theory (Phys. Rev., 83, 252 (1951)) is due to multiple phonon emission from one electron. Professor P. A. Cherenkov is thanked for discussions, Engineer M. P. Piskov and Technician Yu. I. Krutov for help. There are 3 figures

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Bremsstrahlung spectrum of...

33964
S/089/62/012/003/001/013
B102/B108

and 14 references: 4 Soviet and 10 non-Soviet. The four most recent references to English-language publications read as follows: J. Lawson Nucleonics, 10, 61 (1952); R. O'Rourke, A. Anderson. Phys. Rev., 99, 1484 (1955); L. Eyges. Phys. Rev., 81, 982 (1951); R. Wilson. Proc. Phys. Soc., A66, 638 (1953).

SUBMITTED: July 14, 1961

Fig. 2. Experimental results compared with results from Schiff's theory and Eq. (3) (curve 2). For curve 1 a correction was made for spectrometer dispersion only, for curve 2 multiple phonon emission was taken into account. $E_0 = 260$ Mev, target (tungsten) thickness 0.15

radiation units. Abscissa: E_γ , Mev, ordinate: radiation intensity, arbitrary units.

Card 3/03

ACCESSION NR: AT3012929

S/2504/63/019/000/0066/0097

AUTHOR: Ado, Yu. M.

TITLE: Incoherent electron radiation in a synchrotron and some of its applications

SOURCE: AN SSSR. Fizicheskiy institut. Trudy*, v. 19, 1963, 66-97

TOPIC TAGS: synchrotron, cyclic accelerator, electron acceleration, electron incoherent radiation, accelerator operation, electron optical radiation spectrum, electron cluster, electron cluster azimuth

ABSTRACT: Experiments are described, performed with the 280 MeV synchrotron of the Fizicheskiy institut im. P. N. Lebedeva AN SSSR (Physics Institute AN SSSR), concerning some properties of incoherent electron radiation which always accompanies electron acceleration in cyclic accelerators, and the application of this radiation to problems connected with accelerator operation. The study covers the spectral characteristics of electron optical radiation and several applications of the optical radiation of electrons (determination of the number of accelerated electrons, determination of the number of

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ACCESSION NR: AT3012929

electrons prematurely reaching the target during the acceleration process, measurement of the azimuth of a cluster of accelerated electrons). The experiments have shown that many characteristics and features of the accelerator can be investigated with the aid of the radiation from the electrons. Further experiments will undoubtedly contribute to a deeper investigation of the mechanism of acceleration of electrons in the cyclic accelerators. Appendices include the calculation of the bremsstrahlung intensity in the 280 MeV synchrotron, a theoretical calculation of the azimuthal length of the electron cluster. Reports of the experimental data are accompanied by a mathematical analysis. "In conclusion, the author is grateful to the entire synchrotron crew and to Professor P. A. Cherenkov for continuous interest in the work." Orig. art. has: 27 figures, 29 formulas and 1 table.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR
(Physics Institute, AN SSSR)

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"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330002-2

ACCESSION NR: AT5007920

01000164/000/000/0355/0357

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330002-2"

"APPROVED FOR RELEASE: 06/05/2000

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APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330002-2"

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330002-2

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330002-2"

TITLE: Influence of synchrotron radiation on colliding particle beams in storage BT

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy.

where e is the electron charge, c is the velocity of light, m is the mass of the

$$\omega_1 = \frac{e}{h} \left(\frac{E}{m} \right)^{1/2}$$

The number of photons n that interact with the colliding beam in unit time equals

$$n = \frac{W}{h\nu} \cdot \frac{q}{2\pi}$$

The probability of loss of electrons p is

$$p = n \frac{q}{2\pi} \cdot \frac{1}{q}$$

where q is the number of collisions in colliding beams per unit time

ACCESSION NR: AT5007924

Card 5/6

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330002-2

DISCLOSURE 01

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100330002-2"

ADG, M.H.; KERNON, Ye.G.; CHERNEKOV, P.A.

Experiments on electron accumulation in a synchrotron. Atom. energ.
18 no.2:104-107 F '65. (MIRA 18:3)

ADU, YU. V.

CA

11-2

Change of the acidity of the medium under the influence of fungus mycelium. Yu. V. Ado. *Arkhangel'sk. Lesotekh. Inst., Sbornik Nauch.-Issledovatel. Rabot* No. 8, 49-57 (1946).—Growth of a variety of fungi on artificial media is shown to lead to the generation of varying degrees of acidity, which is most pronounced in wool-destroying organisms. Qual. tests on litmus-contg. agar and quant. tests in which pH was detd. on cultures in agar inoculated for 1 month at 22-25° gave the following results: (Initial pH 6.4) *Trametes pini*—final pH 4.7, *Fomes pinicola* 2.8, *Fomes roseus* 3.7, *Fomes fomentarius* 6.0, *Polyporus betulinus* 2.8, *Polystictus zonatus* 6.2, *Daedalia unicolor* 6.2, *Leucites septaria* 3.7, *Corticium luteo* 6.4, *Peniophora gigantea* 5.4, *Ceratostomella coerulea* 6.7, *Ceratostomella pini* 6.7, *Ceratostomella piceae* 6.7, *Leptographium lundbergii* 6.0, *Cladophora fastigiata* 6.7, *Endiconidiophora coerulea* 6.5, *Cladospirium herbarum* 6.7, *Sporodermium* spp. 0.8, *Rosellinia pultrata* 7.0, *Hormodendrum cladosporioides* 6.7, *Coniothecium* spp. 6.4, *Charonium globosum* 6.4, *Epicoccum purpureum* 6.4, *Fusarium* spp. 6.6, *Trichothecium roseum* 6.6, *Mucor plumbeus* 5.6, *Penicillium glaucum* 6.0, *Aspergillus niger* 2.8. Controls remained unchanged. Similar results were obtained in glucose agar cultures. The wool-destroying fungi cause acidity apparently by oxidative action on the carbohydrates of the medium. The relation of the acid production to bactericidal action of the fungi is briefly discussed.

G. M. Kosolapoff

ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION

MIKONOV, S.A., doktor tekhnicheskikh nauk, professor; AROBELIDZE, G.A.,
kandidat tekhnicheskikh nauk; SIZOV, V.N., kandidat tekhnicheskikh
nauk; PRVZNER, A.S., redaktor izdatel'stva; GUSEVA, S.S., tekhnicheskiiy redaktor

[Instructions for steaming concrete and reinforced concrete elements
in plants and yards (I 206-55/MSPMKhP)] Instruktsiia po preparirovaniu
betonnykh i zhelezobetonnykh izdelii na zavodakh i poligonakh.
(I 206-55/MSPMKhP) Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture,
1956. 17 p. (MLBA 10:1)

1. Russia (1923- U.S.S.R.) Ministerstvo stroitel'stva prdpriyatiy
metallurgicheskoy i khimicheskoy promyshlennosti. Tekhnicheskoye
upravleniye. 2. Laboratoriya betonov i vyazhushchikh Tsentral'nogo
nauchno-issledovatel'skogo instituta promyshlennykh sooruzheniy
(for Mironov, Arobelidze, Sizov)
(Concrete)

RUMANIA / Farm Animals. Cattle.

Q

Abs Jour : Ref Zhur - Biologiya, No 5, 1959, No. 21234

Author : Andrei, N.; Marin, I.; Popa, I.; Adochitei, C.

Inst : Not given

Title : Investigations of the Problem of Morphologic-
Productive Properties in Cows of the Pinzgau Breed
at the Cotusca State Farm

Orig Pub : Probl. zootehn. si veterin., 1958, No 4, 13-21

Abstract : The Pinzgau cattle at the Cotusca State Farm has a
well proportioned and strong body build and possesses
a lively disposition. The cows' average milk yield
amounts to 3165 liters, the maximum being 6157 liters.

Card 1/1

L 43122-65

ENG(j)/EST(m)/SPT(c)/SPR/T/SP(t)/SP(h)

PR-4/PS-4

IJP(c)

porosity and the effective surface decrease substantially ($S=110 \text{ m}^2/\text{g}$) at 400C. Additional heating to 450C results in an adsorbent with still lower adsorption properties ($S=73.0 \text{ m}^2/\text{g}$). The authors verified the characteristic change in the dioxide's coloring from white to light brown when it is evacuated in a vacuum and heated to 300C. The color changes from light brown to black as the material is heated in a vacuum to 450C. Such changes in the coloring of the dioxide when heated and evacuated indicate a process of oxygen impoverishment, and formation of material with altered chemical properties, representing a significant and interesting subject for further research. From the authors' summary.

SUB CODE: IC, MM

ENCL: 00

me
Card 2/2

ADOLF, L.

What must one keep in mind in construction of industrial buildings? p. 215
NOVA PROIZVODNJA. Ljubljana.
Vol. 6, no. 3, Aug. 1955

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 2,
Feb. 1956

Dissertation: "Monograph of the Antelope-saiga." Moscow City Pedagogical
Inst imeni V. P. Potemkin, 2 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

ADOL'F, T. A.

Adol'f, T. A. - "The growth and development of bear cubs by observing them at the Moscow zoo in 1940," Trudy Mosk. zooparka, Vol. IV, 1949, p. 78-91, - Bibliog: 12 items

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

ADOL'F, T. A.

Adol'f, T. A. - "Certain data on the growth and development of Dzhunger hamster -
Phodopus songarus Pall," Trudy Mosk. zooparka, Vol. IV, 1949, p. 92-99

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

ADOL'F, T.A.; BASHENINA, N.V.; DUKEL'SKAYA, N.M.

Long-lasting winter rodent control spots. Biul. Glav. bot sad
no.24:97-99 '56. (MLRA 9:11)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova
(for Adol'f) 2. Moskovskiy oblastnoy pedagogicheskiy institut
imeni Potemkina (for Bashenina) 3. Glavnyy botanicheskiy sad
Akademii nauk SSSR (for Dukel'skaya).
(Rodent control) (Zinc phosphides)

ADOL'F, T.A.

Dynamics of the distribution and populations of saiga. Ochr. prir.
i zapov. delo v SSSR no.2:125-139 '57. (MLRA 10:8)

1. Moskovskiy gorodskoy pedagogicheskiy institut imeni Potemkina.
(Saiga)

ADOLF, V. A.

"Utilization of Enlarged Maps From the Textbook by N. N. Baranskiy and of Economic Geography Tables for Geography Classes of the 8th Grade," a report which was discussed at one of the 1953 meetings of the Dept. of School Geography, Moscow Affiliate, AU Geographic Society, Iz. vses Geograf. Obsch., No.6, 1954.

ADOL'F, V. A.

K. A. Katsevich, V. A. Adol'f, I. V. Novitskiy, et al., Traktor KhTZ-7 (The KhTZ-7 Tractor), Selkhozgiz, 23 sheets.

The booklet describes the construction and regulation of the garden-and-truck farm tractor KhTZ-7, gives instructions for the operation and maintenance of the tractor, treats the construction of a shed system for agricultural machines working with the KhTZ-7 tractor, and gives the technical data of the tractor, rules for washing and parking it, a table of the principal assembly tolerances, and other information.

SO: U-6472, 18 Nov 1954

ADOL'F, Viktor Aleksandrovich; LEBEDENSKIY, G.V.; MEYLIKHOV, M.M.;
MEKSIN, M.A.; SEPIYY, V.T.; MEDVEDEV, I.N., inzhener, redaktor;
KOBYLIAKOV, L.M., redaktor; PERESYNNINA, Z.D., tekhnicheskiy
redaktor; BALLOD, A.I., tekhnicheskiy redaktor

[Disassembling and assembling KhTZ-7 tractors] Razborka i sborka
traktora KhTZ-7. Pod red. I.N.Medvedeva. Moskva, Gos. izd-vo
selkhoz. lit-ry, 1956. 194 p. (MLRA 9:7)
(Tractors)

ADOL'F, Viktor Aleksandrovich, inzh.; LEBEDINSKIY, G.V., inzh.; MEK-
SIN, M.A., inzh.; NOVITSKIY, I.V., inzh.; PESTRYAKOV, A.I., red.;
GUREVICH, M.M., tekhn.red.

[DSSh-14 self-propelled chassis] Samokhodnoe shassi DSSh-14.
Pod red. G.V.Lebedinskogo. Moskva, Gos.izd-vo sel'khoz.lit-
ry, 1959. 181 p.

(MIRA 14:5)

1.Khar'kovskiy traktorosbornochnyy zavod (for Adol'f, Lebedin-
skiy, Maksin, Novitskiy)

(Tractors)

ADOL'F, V.A.; PAVLOVA, A.N.; PODRIGALO, A.I.; LEBEDINSKIY, G.V.,
inzh., red.; ARTYUKHIN, V.A., red.izd-va; EL'KIND, V.D.,
tokhn. red.

[Catalog of parts for the T-16 self-propelled chassis]
Katalog detalei samokhodnogo shassi T-16. Moskva, Mashgiz,
1963. 182 p. (MIRA 17:2)

1. Khar'kovskiy traktorosbornochnyy zavod. 2. Otdel glavnogo
konstruktora Khar'kovskogo traktorsbornochnogo zavoda (for
Adol'f, Pavlova, Podrigalo).

SEREBRYAKOV, I.N., inzh.; IEMDEV, A.I., inzh.; ABOL'EV, V.A., inzh.

Experimental automotive chassis with an automatic hydraulic
displacement drive. Mashinostroenie no.4:94-95 JI-Ag '64.
(MIRA 17:10)

COUNTRY : Czechoslovakia
 CATEGORY :
 ABST. JOUR. : J. Chem. Eng. 1956, 10, 561-565
 AUTHOR : Anonymous
 INFO. : Not given
 TITLE : Columns with Slaten Plates
 CTRY. PUB. : Chem. Prumysl. 5, No 11, 561-565 (1956)
 ABSTRACT : Liquid enters the column through the distributor grid (1) and then flows in the form of a thin film over the surface of the packing consisting of parallel metal plates (2) with bent upper edges. Vapor leaves the column through the opening (3) and the connecting pipe (4). Droplets of liquid entrained by the vapor are removed by the connecting pipe (5) [EN: entrainment separator apparently not shown in figure]. Studies on the rectification of methanol-water

CARD: 174

COUNTRY : Czechoslovakia 4-2
 CATEGORY :
 ABS. JOUR. : JOMM... 5. 10 1974, 5. 57555
 AUTHOR :
 TITLE :
 ABSTRACT :
 ABSTRACT : since the time which the liquid spends to rise
 column is increased. A comparison of the per-
 formance of the foam column with that of a single-
 column column has shown that at equal separa-
 tions of separation the loading on the vatted
 plate column exceeds that on the single-plate
 column by a factor of 4. A decrease in the
 gradient of the plates increases the separation
 effectiveness of the column with an insignificant
 increase in the pressure drop. Equations are
 given for the calculation of the packing height
 1974 5/4

ADOLFOWNA, I.

Poland/Physical Chemistry - Photochemistry. Radiation Chemistry. Theory of the Photographic Process, B-10

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61114

Author: Dorabialska, A., Kroh, J., Adolfowna, I.

Institution: None

Title: Potentiometric Investigations of the Chemiluminescence of Luminol

Original

Periodical: Badania potencjometryczne w dziedzinie chemiluminescencji luminolu, Zesz. nauk Politechn. lodzkiej, 1955, No 9, 3-15; Polish; Russian and English resumes

Abstract: Investigation of the kinetics of oxidation of luminol with H_2O_2 , involving chemiluminescence, by measuring the oxidation-reduction potential. The experiments were conducted at different pH in the absence and in the presence of hemoglobin (0.04%) as a catalyst. Electromotive force was investigated from beginning of reaction to the reaching of equilibrium. In all instances there was observed an increase in potential up to the moment of equilibrium while

Card 1/2

LERINMAN, R.M.; SHCHEGOLEVA, T.V.; PAVLOVA, G.V.; ADOLINA, T.I.

Electron microscopy of plastic deformations in aluminum-silver alloys. Fiz. met. i metalloved. 18 no.4:623-630 0 '64. (MIRA 18:4)

1. Institut fiziki metallov AN SSSR.

VITKAUSKAS, Vytautas; ADOMAITIENE, V., red.; BALCIUNAS, L., tekhn.
red.

[Work of a rural construction worker] Kaimo statybininko darbai.
Vilnius, Lietuvos TSR Ministrų Tarybos Valstybinio statybos ir
architektūros reikalų komiteto Centrinis techninės informacijos
ir propagandos biuras, 1961. 155 p. (MIRA 15:3)
(Farm buildings)

ADOMAVICHYTE, O. B., Cand Tech Sci -- " On ~~the~~ ^{the hardening} processes of ~~solidification~~ ^{resistance} and increased water-proof capacity of magnesium cement." Kaunas, 1961. (State Com of Higher and Res Spec Ed of the Council of Ministers LSSR. Kaunas Polytech Inst) (KL, 8-61, 240)

- 194 -
- 193 -

ADOMAVICHYUTE, O.B. [Adomaviciute, O.]; YANITSKIY, I.V.; VEKTAHIS, B.I.

Hardening of magnesian cement. Zhur.prikl.khim. 35 no.11:2551-2554
N '62. (MIRA 15:12)

(Magnesia cement)

VITKAUSKAS, J., red.; ZVIRENAS, A., red.; SERKSNYS, J., red.;
ADOMAVICIUS, B., red.; BARANAUSKAS, B., red.; PETRUSEVICIUS, V.,
red.; GLEVAVICIENE, S., red.

[Problems of the mechanization of agricultural production]
Zemes uio ganybos mechanizavimo klausimai. Vilnius, leidykla
"Mintis," 1964. 118 p. [In Lithuanian] (MIRA 18:2)

1. Lietuvos zemes ukio mechanizacijos ir elektrifikacijos
mokslinio tyrimo institutas.

USSR/Soil Science. Organic Fertilizers

J-4

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 43867

Author : ~~Adomaviciute J.~~

Inst : The Lithuanian Scientific Research Institute of Agriculture

Title : Increasing the Effectiveness of Lupine for Green Manure by Means of Peat

Orig Pub : Tr. Lit. n.-i. in-ta Zemled., 1957, 3, 173-205 (Lithuanian; res. Russ.)

Abstract : As a result of field tests made on peat-silt light loam soil of the training farm of the Lithuanian Agricultural Academy and on peat-podzolic sandy soil, high winter rye yield boosts were obtained by applying lowland peat to annual lupine not only in large doses (40 t. per ha.) while plowing, but in doses of 10 t. per ha. in application with a cultivator in mixture with P_c. In an instance where factory granulated P_c was used, the effect of this mixture is equal in effectiveness to 20 t. per ha. of manure. The bibliography

Card : 1/1 lists 35 titles. --N.N. Sokolov

ADOMAYTENE, S.V.; SLADKOV, A.M.; SHISHKOV, V.P.

Condensation of vinyl ethers with amides. Part 2. Zhur. ob. khim.
34 no.9:2958-2960 S '64. (MIRA 17:11)

ADOMAYTIS, A.I., inzh.

Construction of precast bridges for the Klaipeda coal sorting
complex. Shakht.stroi. 8 no.3:22-24 Mr '64. (MIRA 17:3)

1. Stroitel'noye upravleniye No.31 Klaypedskogo stroitel'nogo
tresta.

ADOMENAS, V.

The general council of our hospital - an active aid for the
administration and controller. Sveik. apsaug. 8 no.1:29-31
Ja*63.

1. Kauno m. II ligonine.

*

ADOMONITE, G.M.

Change in the type of characteristics of Salmonella paratyphi B under the influence of type-specific bacteriophages. Zhur. mikrobiol., epid. i immun. 41 no.3:70-75 Mr '64. (MIRA 17:11)

1. Gosudarstvennyy kontrol'nyy institut meditsinskikh biologicheskikh preparatov imeni Tarasevicha.

KUZINA, A.N.; MALETINA, M.V.; ADOMONITE, G.M.; GRISHINA, O.S.; GRANT, Kh.Ya. [Grants, H.]; KOVALEVA, V.I.; ZIL'FYAN, V.N.; MNATSAKANYAN, A.G.; BOYKO, L.D.; SVERCHKOV, A.N.

Authors' abstracts. Zhur. mikrobiol., epid. i immun. 41 no.11:138-143 '65. (MIRA 18:5)

1. Irkutskiy institut epidemiologii i mikrobiologii (for Kuzina, Maletina).
2. Gosudarstvennyy kontrol'nyy institut meditsinskikh biologicheskikh preparatov imeni Tarasevicha (for Adomonite).
3. L'vovskiy institut epidemiologii, mikrobiologii i gigiyeny (for Grishina).
4. Rzhskiy meditsinskiy institut (for Grant).
5. Dagestanskiy institut po proizvodstvu pitatel'nykh sred (for Kovaleva).
6. Yerevanskiy meditsinskiy institut i Respublikanskaya sanitarno-epidemiologicheskaya stantsiya (for Zil'fyan, Mnatsakanyan).
7. Kiyevskiy institut epidemiologii i mikrobiologii (for Boyko, Sverchkov).

ADOMONITE, G.M.

Phagotypes of Salmonella paratyphi B cultures examined by means of the Felix and Callow standard method. Zhur. mikrobiol., epid. i immun. 42 no.11:34-36 N '65.

MIRA 18:12)

1. Gosudarstvennyy kontrol'nyy institut meditsinskikh biologicheskikh preparatov imeni Tarasevicha. Submitted March 23, 1964.

L 03749-67 EWP(1) JK
ACC NR: AP6034529

SOURCE CODE: UR/0016/66/000/010/0144/0144

AUTHOR: Adomonite, G. M.

ORG: State Control Institute of Medical and Biological Preparations
im. Tarasevich, Moscow (Gosudarstvennyy kontrolnyy institut meditsin-
skikh biologicheskikh preparatov)

TITLE: Phage sensitivity and lysogenic state of antibiotic-resistant
variants of type B paratyphoid bacilli

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 10,
1966, 144

TOPIC TAGS: *DRUG EFFECT,*
~~Human-infection~~, paratyphoid, paratyphoid type B, antibiotic
resistance, phage sensitivity, lysogeny, lysogenic state, bacteriophage,
ANTIBIOTIC, STREPTOMYCIN, TETRACYCLINE, INFECTIVE DISEASE

ABSTRACT: The phage types of paratyphoid bacilli resistant to strepto-
mycin, tetracycline, monomycin, and levomycin were determined. These
resistant variants had been obtained after 20—34 passages *in vitro*.
All strains were identified as known phage types. [W.A. 50]

SUB CODE: 06/ SUBM DATE: 12Apr66/ ORIG REF: 001

Card 1/1 bc

UDC: 576.851.49.097.22:615.779.9

ADONAJLO, A.

"Tularemia, a disease of hares", p. 5; "Read about dysentery", p. 5, (ZDROWIE, Vol. 5, No. 8, 1953, Warszawa, Poland)

30: Monthly List of European Accessions, L.C., Vol. 3, No. 4, April, 1954

BONCZAK, Jerzy; ALONSO, Anita

Analysis of cases of bacillary dysentery treated under ambulatory conditions. *Wzrost. epidem.* 18 no. 1:19-23, 1964.

1. Z Poradni Chorzen Jelitowych Warszawa -- Praga Polnoc (Kierownik: lek. med. J. Bonczak) i z Zakladu Epidemiologii i Infekcyjnego Zakladu Higieny (Kierownik: prof. dr. J. Bonczak).

KOSTRZEWSKI, J., GRUZEWSKI, A. ADONAJLO, A.

Sporadic typhoid fever. III. Attempted prediction of intensity of typhoid fever in interepidemic periods. Przegl. epidem. 7 no.3:179-186 1953. (CINL 25:5)

1. Of the State Institute of Hygiene and of the Institute of Epidemiology of Warsaw Medical Academy.

EXCERPTA MEDICA Sec 17 Vol 5/10 Public Health Oct 59

2880. EPIDEMIOLOGICAL FEATURES OF WHOOPING COUGH IN LENINGRAD IN 1953-1955 - Epidemiologiczna charakterystyka krztuśca w Leningradzie w latach 1953-1955 - Adonajto A. Praca Wykonana, Leningrad. Sanit.- hig. Med. Inst., Przy Kat. Epidemiol. - PRZEGL. EPIDEM. 1958, 12 3 (281-294) Graphs 1 Tables 5

The main reason for conducting this investigation was to reveal the epidemiological features of whooping cough in a big city and to establish the origin of high incidence of it in organized children's institutions (nurseries, kindergartens, children's homes). This work contains a statistical section covering incidence and mortality according to age groups and seasonal appearance. The author's observation covered 22 children's institutions and 103 private flats in which cases of whooping cough were reported. Bacteriological and serological investigations were carried out in the earliest period of the illness, as well as in abortive cases of whooping cough. In the children's institutions mentioned 2,095 children were under observation, 28 epidemic outbreaks were observed, as well as 8 instances where introduction of the infection caused no epidemic in the establishment. In private flats 513 children were under observation: 454 bacteriological and 162 serological tests were conducted. Of the total number of children in the establishments who had previously not been ill with whooping cough and who came into contact with persons ill with whooping cough, 44.6% fell sick. In private flats only 30% of such children fell sick. Early bacteriological examinations allowed a lowering of the number of consecutive cases to half. During the catarrhal stage of whooping cough 94% positive results in bacteriological examinations were obtained, whereas up to the 9th day of the illness the results were 100% positive. The following reasons for the high incidence in the children's institutions were established: failure to apply methods of early bacteriological diagnosis, failure to adhere to sanitary and anti-epidemic measures, and unsatisfactory sanitary conditions in the institutions. In observing children in prolonged contact with whooping cough, it was established that none of them, even those in closest contact with a sick person, fell sick later than the 22nd day from the beginning of the illness of the children who were the source of infection. These data allowed an eventual shortening of the quarantine period by 10 days in healthy children coming in contact with whooping cough cases (up to this time a 40-day quarantine had been compulsory).

ADONAJLO, Aniela; NARUSZEWICZ, Danuta; PIATKOWSKI, Jerzy

Comparative evaluation on human subjects of immunizing properties of anti-whooping cough vaccines of domestic production. I. Laboratory evaluation of the whooping cough component in 3 diphtheria-tetanus-whooping cough vaccines and serological reactions in vaccinated children. Przegl.epidem. 15 no.2:151-156 '61.

1. Z Zakladu Epidemiologii PZH Kierownik: prof. dr J. Kostrzewski
i z Zakladu Epidemiologii AM Kierownik: prof. dr F. Przesmycki.

(WHOOPING COUGH immunol) (VACCINES)
(TETANUS immunol) (DIPHTHERIA immunol)
(TETANUS immunol)

ADONAJLO, Aniela; MALYSZKO, Halina; PIATKOWSKI, Jerzy; DZIKOWSKA, Janina;
MAGDZIARZ, Henryka; GILEWSKA, Aniela

Comparative evaluation on human subjects of immunizing properties of anti-whooping cough vaccines of domestic production. II. Post-vaccinal reactions after the application of diphtheria-tetanus-whooping cough vaccines. Przegl.epidem. 15 no.2:157-162 '61.

1. Z Zakladu Epidemiologii PZH Kierownik: prof. dr J. Kostrzewski
i ze Stacji San.-Epid. dla m. st. Warszawy Dyrektor: dr E. Nierenska.

(VACCINES) (DIPHTHERIA immunol) (TETANUS immunol)
(WHOOPING COUGH immunol)

NESTERENKO, M.Z.; ZDANOW, W.M.; ZUKOWSKI, A.M.; Tlum: dr.med. ADONAJLO, A.

Studies on the epidemiology of influenza A2. Przegl. epidem. 15
no.3:265-278 '61.

1. Instytut Wirologii im. D.J.Iwanowskiego ANM ZSRR, Moskwa.
(INFLUENZA ASIAN epidemiol)

ADONAJLO, Aniela; BONCZAK, Jerzy

Tapeworm infection in the light of an intestinal disease clinic in the northern section of Praga in Warsaw. Przegl. epidem. 15 no.4:425-427 '61.

(TAPEWORM INFECTIONS epidemiol)

POLAND

ADONATLO, Aniela; technical aid: Jerzy PIATKOWSKI, Janina DEIKOWSKA, Henryka MACDZIARZ, Aniela GILEWSKA; of the Department of Epidemiology (Zaklad Epidemiologii), PZH /Państwowy Zaklad Higieny -- State Institute of Hygiene, Director: Prof Dr J. KOSTRZEWSKI; and the Capital City of Warsaw Station of Health and Epidemiology (Stacja Sanitarno-Epidemiologiczna dla m. st. Warszawa), Director of the Epidemiology Division: graduate physician H. MALYSZKO

"Comparative Evaluation of the Immunogenic Potency of Anti-Whooping Cough Vaccines. III. Epidemiological Evaluation of the Pertussis Component of D1 Te Per Combined Vaccines"

Warsaw, Przegląd Epidemiologiczny, Vol XVI, No 4, 1962
pp 423-430

Abstract: [Authors' English summary modified] Some epidemiological observations were made on children born in 1959, 1960 and 1961 in the City of Warsaw immunized with D1 Te Per vaccines. It appeared that pertussis incidence was as high as

1/2

ADONAJLO, Aniela; pom. techn. PIATKOWSKI, Jerzy; DZIKOWSKA, Janina;
MAGDZIARZ, Henryka; GILEWSKA, Aniela

Comparative evaluation of human antipertussis vaccines of domestic production. III. Epidemiological evaluation of the pertussis component of diphtheria-tetanus-pertussis vaccines. Przegl. epidem. 16 no.4: 423-430 '62.

1. Z Zakladu Epidemiologii PZH Kierownik: prof. dr J. Kostrzewski
i ze Stacji Sanitarno-Epidemiologicznej dla m. st. Warszawy Kierownik
Dzialu Epidemiologii: lek. med. H. Malyszko.
(PERTUSSIS VACCINE) (DIPHTHERIA) (TETANUS)

POLAND

ADONAJLO, Aniela, VYSOKA-BURIANOWA, Bela, and PELLAR, Tomasz, Chair of Medical Epidemiology, Division of Hygiene, Charles University [original version not given] in Prague, Czechoslovakia (Director: Prof. Dr. K. RASKA) and the Epidemiology Research Office (Zaklad Epidemiologii), State Institute of Hygiene (Panstwowy Zaklad Higieny) in Warsaw (Director: Prof. Dr. J. KOSTRZEWSKI)

"Course of Parapertussis Epidemic in Two Kindergartens in Prague-10 (Czechoslovakia)."

Warsaw, Przegląd Epidemiologiczny, Vol 17, No 3, 63, pp 207-213

Abstract: [Authors' English summary modified] Identification of B. parapertussis in two kindergartens in Prague, where most children had been vaccinated against pertussis, was followed with a study covering all children, members of the staff, and their families (342 persons). The par bacillus was found in 35 and 47% of the children and in an average of 15% in members of their families, with children accounting for 75% of the latter. The bacillus was found in 31.5% of cases 1-6 weeks after treatment with chloramphenicol. 5 refs: 1 Soviet, 1 Western, 3 Czechoslovakian. 1/1

ADONADO, Angel

/ Several tests with T. ... various kinds of ... wind, ...

1. ...

Pamiatka sborshchika po montazhu metallicheskih konstruktsii gidroelektrostantsii
(Handbook for metal fitters working on the construction of hydroelectric power plants)
Moskva, Gosenergoizdat, 1953. 80 p.

SO: Monthly List of Russian Accessions, Vol 7, No 9, Dec 1954

ADONAYLO, A. Cand Med Sci -- (diss). "The Epidemiological
Characteristic^s of Petrussis in ~~LENINGRAD~~ Leningrad; ~~the~~ Measur
for Counteraction and Prophylaxis." Len, 1957. ¹⁴~~35~~ pp 21 cm.
(Min of Health RSFSR, Len Sanitary-Hygienic Medicine Inst^y ~~Inst~~ ¹⁴~~35~~ :
~~Epidemiology~~).
200 copies (KL, 17-57, 99)

- 61 -

ADONAYLO, A.H.

Epidemiological characteristics of whooping cough in Leningrad children's institutions from 1953 to 1955. Trudy LSGMI 32:79-88 '57. (MIRA 12:8)

1. Kafedra epidemiologii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav.kafedroy - prof. V.A.Bashenin). (WHOOPING COUGH, epidemiol. in Russia in child. institutions (Rus))

ADONAYLO, A.M.

Importance of the bacteriological method for the early diagnosis of whooping cough in children's institutions. Trudy LSGMI 32: 89-94 '57. (MIRA 12:8)

1. Kafedra epidemiologii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav.kafedroy - prof.V.A.Bashenin). (WHOOPING COUGH, diag. early, bacteriol. methods (Rus))

ADONAYLO, A.M.; SAMOSTREL'SKIY, A.Yu.

Quarantine periods for whooping cough. Trudy LSGMI 32:95-
99 '57. (MIRA 12:8)

1. Kafedra epidemologii Leningradskogo sanitarno-gigiyenicheskogo instituta (zav.kafedroy - prof. V.A.Bashenin).
(WHOOPIING COUGH, prev. & control
quarantine, problems in shortening period
(Rus))

ADONAYLO, A. M.

"The importance of laboratory diagnosis of whooping-cough in the antiepidemic practice."

Report submitted to the 13th All-Union Congress of Hygienists, Epidemiologists, and Infectionists. 1959

ADONIN, A. N.

USSR/Petroleum - Well Drilling
Pumps

May 1947

"The Problem of Increasing the Durability of
Deep Pumps," A. N. Adonin and A. N. Pirverdyan
(City of Baku), 6 pp

"Neftyanoye Khozyaystvo" Vol 25, No 5

Problem of underground repair and exchange of
valves. The elimination of breakdowns. Tables
and graphs showing relationships between running
time, leakage, optimum-clearance, etc.

9T82

USSR/Petroleum Industry
Pumps - Operation

Oct 1947

"Two Methods of Operating a Deep Pump Unit," A. N.
Adomin, 6 pp

"Neftyanoye Khozyaystvo" No 10

Discussion of the static and dynamic methods of operating a deep pump unit and the results obtained by each. The article is accompanied by graphs and tables of the results of comparative operating by each method.

LC

30T69

ADONIN, A. M.

Adonin, A. M. and Firverdyan, A. M. "On the small-gauge 3SKM-7 tool", (in connection of the article by K. S. Aliverizade and A. M. Rabonovich entitled "The small-gauge long-stroke 3SKM-7 vibrator", in the periodical Neft. Khozvo, 1949, No. 6), Neft. Khozvo, 1949, No. 12, p. 13-14

SO: U-2888, 12 Feb. 53, (Letopis' Zhurnal 'nykh Statoy, No. 2, 1949).

Sep 48

USSR/Petroleum Industry

Petroleum
Oil Wells

"Operation Experience at Wells," A. N. Adonin, 1 p

"Nefte Khoz" No 9

Describes new, well-equipped socialist settlements for oil-field workers. Otkryabr'ak is one of the newest cities of the vast Second Baku oil regions of Bashkir ASSR. More than 150 houses and a series of industrial buildings have been erected here. A large mechanical factory where preventive repairs of equipment will be carried out has also been built. New

60/49T101

Sep 48

USSR/Petroleum (Contd)

settlements are being constructed near Be and in Neftechel and in desert steppes of the new Kazan-Bulag oil region and the city Kirovabad.

60/49T101

ADONIN, A.N.

PIRVERDYAN, Aleksandr Mikhaylovich, doktor tekhnicheskikh nauk;
ADONIN, Anatoliy Nikiforovich, kandidat tekhnicheskikh nauk;
LISIYAN, K.A., redaktor; AL'TMAN, T.B., redaktor.

[Problems in the hydraulics and efficient operation of deep-
well pumps] Voprosy gidravliki i rabotosposobnosti glubin-
nogo nasosa. Baku, Azerbaidzhanskoe gos.izd-vo neftianoi i
nauchno-tekhn.lit-ry, 1955. 191 p. [Microfilm] (MLRA 9:1)
(Pumping machinery)

PAYERMAN, Isaak L'vovich; ADONIN, An.N., kandidat tekhnicheskikh nauk,
dotsent, redaktor; UDALYI, A.M., tekhnicheskii redaktor,
[deceased]

[Rods for deep-well pumps] Shtangi dlia glubinnykh nasosov.
Baku, Azerbaidzhanskoe gos.izd-vo neftianoi i nauchno-tekhnicheskoi lit-ry, 1955. 321 p. (MLRA 9:4)
(Pumping machinery)

ADONIN, Anatoliy Nikiforovich; KADYMOVA, Kamilya Sulayman kzy; TROITSKIY,
Vitaliy Fedosovich; AMIROV, A.D., redaktor; SHTEYNGEL', A.S.,
redaktor izdatel'stva.

[Experience in using gas anchors] Opyt primeneniia gazovykh iakorei.
Baku, Azerbaidzhanskoe gos.izd-vo نفت. i nauchno-tekhn.lit-ry,
1956. 53 p. (MIRA 10:9)
(Oil well pumps)

SOV/124-58-7-7783

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 7, p 68 (USSR)

AUTHORS: Baryshev, V.M., Ibragimov, E.I., Adonin, ~~Al N.~~

TITLE: On the Petroleum Yield as a Function of Seepage Speeds
(Zavisimost' nefteotdachi ot skorostey fil'tratsii)

PERIODICAL: Tr. Azerb. n.-i. in-t po dobyche nefti, 1956, Nr 3, pp 5-30

ABSTRACT: A description and an analysis of experiments on the displacement of petroleum by water, conducted at the AzNII (Azerbaydzhan Scientific Research Institute) for petroleum production over a number of years, is given. As indicated by the authors, the experiments were conducted for different types of petroleum with and without the presence of residual water in the porous medium. In models, the porous medium was represented by tightly packed quartz sand. The authors assert that during the experiments in the years of 1953-1955 they performed analog simulation that took into consideration the viscosity and the surface tension of the oil, also the speed of advance of the water-oil contact interface in full-scale conditions. The article fails to mention any similarity criteria confirming the previous statement. The magnitude of the petroleum yield during the

Card 1/2

SOV/124-58-7-7783

On the Petroleum Yield as a Function of Seepage Speeds

time of water-free exploitation period is studied as a function of the speed of advance of the water-oil contact interface when displacing petroleum with salt water and alkaline water. The yields of various types of petroleum by salt-water flooding as dependent upon the speed of liquid seepage during the flooding period are investigated. Deductions derived from both types of investigations are presented. A series of specific practical recommendations concerning the working of oil-bearing deposits currently under exploitation are considered unfounded, since the solution of these problems should be carried out by means of a substantially wider theoretical framework, including considerations such as petroleum geology, underground hydrodynamics, and pertinent economics. Bibliography: 10 references.

M.D. Rozenberg

1. Petroleum--Production
2. Fluid flow--Theory
3. Hydrodynamics--USSR

Card 2/2

GUSEYNOV, G.S.; ADONIN, An.N.

Wear resistance of deep well pumps based on oil-field data.

Trudy AzNII DN no.6:49-65 '57.

(MIRA 12:12)

(Oil well pumps)

ADONIN, An.N.

Efficient fluid distribution in sectional anchors. Trudy AzNII
DN no.6:159-168 '57. (MIRA 12:12)
(Oil well pumps)

TROITSKIY, V.F.; ADONIN, A.N.

Equipment depletion in directionally drilled wells. Dokl. AN Arm.
SSR 24 no.2:14-17 '57. (MLRA 10:4)

1. Sotrudniki Azerbaydzhanskogo nauchno-issledovatel'skogo instituta
po dobyche.

(Oil wells--Equipment and supplies)

ADONIN, An.N.; BUZDAKOV, A.P.; RUSTAMOV, E.M.

Improvement in the manufacture and the use of deep well pumps
in oil fields. Azerb.neft.khoz.36 no.2:22-23 F '57.
(MLRA 10:4)

(Oil well pumps)

ADONIN, A.N., kand.tekhn.nauk; ALIVERDIZADE, K.S., kand.tekhn.nauk;
AMIYAN, V.A., kand.tekhn.nauk; ANISIMOV, Ye.P., inzh.; APRESOV,
K.A., dotsent; BELEN'KIY, V.N., inzh.; BOGDANOV, A.A., kand.
tekhn.nauk; GORBENKO, L.A., inzh.; DANIELYAN, A.A., inzh.;
DAKHOV, V.N., prof.; IVANKOV, B.A., inzh.; KORNYEV, M.I., inzh.;
LAVRUSHKO, P.N., inzh.; LESIK, N.P., inzh.; LOVLYA, S.A., kand.
tekhn.nauk; LOGINOV, B.G., kand.tekhn.nauk; MININZON, G.M., kand.
tekhn.nauk; MOLCHANOV, G.V., kand.tekhn.nauk; MURAV'YEV, I.M.,
prof.; MUSHIN, A.Z., inzh.; OL'SHVANG, D.Ye., inzh.; PODGORNOV,
M.I., inzh.; FAYERMAN, I.L., kand.tekhn.nauk; FOKINA, Ye.D., inzh.;
EFISHEV, A.M., inzh. [deceased]; YERSHOV, P.R., vedushchiy red.;
MUKHINA, E.A., tekhn.red.

[Reference book on petroleum production] Spravochnik po dobyche
nefti. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi
lit-ry. Vol.2. 1959. 589 p. (MIRA 13:2)
(Oil fields--Production methods)

LEBEDEV, V.V.; ADONIN, A.N.; GABRIYELOV, L.V.

Problems in using gas anchors. Trudy KF VNII no.5:92-104 '61.
(MIRA 14:10)
(Oil wells--Equipment and supplies)

ADONIN, A.N.; LEBEDEV, V.V.

Some problems of gas separation at the intake of a deep well pump.

Trudy KF VNII no.5:105-116 '61.

(MIRA 14:10)

(Gas, Natural--Separation)

ZAVERTYAYLO, M.M.; ADONIN, A.N.; SIROTIN, A.M.

Experimental study of the heat-transfer coefficient of double-
pipe gas heat exchangers. Gaz. delo no.6/7:60-64 '63.

(MIRA 17:10)

1. Krasnodarskiy filial Vsesoyuznogo neftegazovogo nauchno-
issledovatel'skogo instituta i Moskovskiy ordena Trudovogo
Krasnogo Znameni institut neftekhimicheskoy i gazovoy
promyshlennosti im. akad. Gubkina.

ALOHIN, Anatoliiy Nikiforovich; DUBLOVINA, N.D., vol. 1 ed.

[beam-well petroleum production processes] Protsessy
glubinnomuznosnoi neftedobychi. Moskva, Nefta, 1964. 282 p.
(U.S.S.R. 17,9)

ADONIN, P.

Let's fulfill the seven-year plan in five or six years. Sov.profsoiuzy
7 no.4:42 Mr '59. (MIRA 12:4)

1. Predsedatel' zavkoma profsoyuza elektrotekhnicheskogo zavoda
"Transsignal," Kiev.
(Kiev--Electric industry workers)

SHESTOPALOV, V.P.; ADONINA, A.I.

Effect of recurrent annular slits and of a layer of dielectric material on wave attenuation in a round wave guide. Zhur.tekh. fiz. 29 no.12:1457-1461 D '59. (MIRA 14:6)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M.Gor'kogo.
(Wave guides)

9,1300

S/141/61/004/004/014/024
E140/E435

AUTHORS: Shestopalov, V.P., Adonina, A.I.

TITLE: On helical waves in a helical waveguide

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika,
v.4, no.4, 1961, 703-711

TEXT: The authors apply the helical coordinate system proposed by R.A.Waldron (Ref.4: Quart J. Mech. Appl. Math., v.11, 4 (1958)) and averaged boundary conditions to obtain the dispersion equations and formulae for the attenuation of TE and TH-helical waves in a tape helical waveguide. There are 6 figures and 6 references: 5 Soviet-bloc and 1 non-Soviet-bloc. The reference to an English language publication is quoted in the text.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet
(Khar'kov State University)

SUBMITTED: January 31, 1961

Card 1/1

S/058/63/000/002/063/070
A160/A101

AUTHORS: Adonina, A. I., Sidorenko, B. G.

TITLE: The propagation of electromagnetic waves in a ring-type waveguide with a dielectric film

PERIODICAL: Referativnyy zhurnal, Fizika, no. 2, 1963, 25 - 26, abstract 2Zh159 ("Uch. zap. Khar'kovsk. un-t", 1962, v. 121, Tr. Radiofiz. fak., 5, 95 -99)

TEXT: An investigation is carried out of a waveguide consisting of infinitely thin coaxial rings provided with a dielectric film on their external or internal side. A characteristic equation for the waves E_{mn} and H_{01} was obtained. The equation was solved by the method of small perturbations - assuming that the gaps between the rings are narrow and the thickness of the dielectric film is small. The attenuation of the waves E_{11} and H_{01} was calculated as an imaginary part of the longitudinal propagation constant. It is considered that the attenuation was caused by the presence of ϵ in the dielectric-film material and by the energy leaked through the gaps between the rings. Numerical calcula-

Card 1/2

The propagation of electromagnetic waves in...

S/058/63/000/002/063/070
A160/A101

tions were carried out for the values ϵ' of the film material 2.5 and 5, and for $\epsilon''/\epsilon' = 4 \cdot 10^{-4}$. It follows from the calculations that in case the dielectric film is located outside of the waveguide, the attenuation does not depend on the thickness of the dielectric film. In case the dielectric film is located on the internal side of the waveguide, the attenuation of the wave E_{11} is proportional to the thickness of the dielectric film, and the attenuation of the wave H_{01} is proportional to the third power of the thickness of the dielectric film. The attenuation of the wave E_{11} is directly proportional to ϵ'' and is inversely proportional to ϵ' of the dielectric film material, and the attenuation of the wave H_{01} does not depend on ϵ' and ϵ'' (the dielectric is located on the external side of the waveguide). To attain a stronger filtration, it is necessary to select a dielectric film with a higher ϵ'' value and a small ϵ' value. When decreasing the structure period, if the fill factor remains constant, the attenuation of the wave E_{11} increases, and the attenuation of the wave H_{01} decreases.

V. Vzyatyshev

[Abstracter's note: Complete translation]

Card 2/2

L 10308-63 EWT(1)/EEC(b)-2/BDS--
AFFTC/ASD/ESD-3--IJP(C)
ACCESSION NR: AP3000169

S/0141/63/006/002/0416/0418

AUTHOR: Adonina, A. I.

57

TITLE: Electromagnetic-wave diffraction at a planar shielded array with a dielectric (inclined incidence case)

SOURCE: Izvestiya vysshikh uchebnykh zavedeniy, radiofizika, v. 6, no. 2, 1963, 416-418

TOPIC TAGS: electromagnetic-wave diffraction shielded metal array

ABSTRACT: The mathematical method suggested by Z. S. Agranovich, et al. (ZhTF, 32, 381, 1962) is used to solve the diffraction problem. The problem is interesting for both the theory of diffraction phenomena in planar arrays and the practical applications of shielded arrays mounted on dielectrics. The solution also permits establishing the boundary conditions that can be used in studying ring-type and helical waveguides. Formulae for reflection factors for E- and H-polarized waves as well as for the boundary conditions are given in the article. Orig. art. has: 6 formulas and 1 figure.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet (Khar'kov State University)

Card 1/2/

L 10000-63

EWI(1)/BDS/EEC(b)-2--AFFTC/ASD/ESD-3--IJP(C)

ACCESSION NR: AP3000991

S/0109/63/008/006/0950/0958

AUTHOR: Adonina, A. I.; Shestopalov, V. P.

TITLE: Diffraction of electromagnetic waves in a plane metal grid with screen
(case of arbitrary incidence)

SOURCE: Radiotekhnika i elektronika, v. 8, no. 6, 1963, 950-958

TOPIC TAGS: EM wave diffraction, diffraction in a grid

ABSTRACT: An analysis is given of the diffraction of EM waves which pass through an infinitely thin, perfectly conducting metallic grid and impinge on an adjacent parallel metal screen. With the assumption that wave polarization and angle of incidence are arbitrary, equations are derived which define the resultant E and H fields in the grid apertures as well as in the metal elements of grid and screen. The dimensional variables are grid aperture, grid wire width and spacing between grid and screen, all expressed as ratios of incident wave length. By way of illustration, the particular case is considered where the E vector is parallel to the grid wires and the problem reduces to the simultaneous

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solution of eight equations. Graphical results are given for this solution, showing the reflection factor as a function of the above dimensions and of angle of incidence; on consideration of the diffraction spectrum, it is seen that the reflection factor increases generally with angle of incidence for the fundamental, but decreases with the angle at harmonic frequencies. It is noted that with sufficiently remote spacing of the parallel screen from the grid the problem reduces to one involving the grid alone -- a case already analyzed by Agranovich, Marchenko, and Shestopalov (ZhTF, 1962, 32, 4, 381). Orig. art. has: 5 figures and 19 formulas.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo (Khar'k State University)

SUBMITTED: 04Jun62 DATE ACQ: 01Jul63

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Pj-4/Pk-4/Pl-4/

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AUTHOR: Adonina, A. I.; Shestopalov, V. P.

TITLE: Diffraction of electromagnetic waves obliquely incident on a plane metallic grating backed by a dielectric layer

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 33, no. 6, 1963, 641-651

TOPIC TAGS: diffraction, gratings, transmission

ABSTRACT: The problem of the diffraction of plane electromagnetic waves obliquely incident on a thin infinite plane metallic grating backed by a dielectric layer of finite thickness is solved for the case in which the plane of incidence is normal to the rulings. Several curves are given showing the transmission coefficient for the directly transmitted beam as a function of wavelength for a number of angles of incidence and values of the ratio of metal to open space in the grating. The curves all refer to the case in which there is no dielectric backing. The points at which spectra of successive orders first appear are marked on these curves by peaks or changes of slope. From these curves and others not published, the authors draw the following conclusions concerning the transmission coefficient for the directly transmitted beam: 1) The transmission coefficient decreases with increasing angle

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S/0057/64/034/001/0168/0173

AUTHOR: Adonina, A.I.; Shcherbak, V.V.

TITLE: Diffraction of obliquely incident electromagnetic waves by a plane metallic grating and reflector separated by a magnetodielectric

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.1, 1964, 168-173

TOPIC TAGS: diffraction, electromagnetic waves, oblique incidence, grating, grating and reflector, equivalent boundary conditions, magnetodielectric, microwave antennas

ABSTRACT: This paper treats the diffraction of obliquely incident, arbitrarily polarized plane electromagnetic waves by a complex structure consisting of an infinite plane metallic grating and a parallel plane reflector separated by a layer of material with arbitrary complex dielectric constant and magnetic permeability (magnetodielectric). This problem is believed to have practical applications to microwave antenna and measuring technology, where it is frequently desirable to support a metallic grating or other structure on dielectric material. The incident and reflected waves and the field in the dielectric between the grating and the reflector are

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expanded in Fourier series and the boundary conditions on the grating and the reflector are expressed in terms of the coefficients. The resulting equations are transformed into an infinite set of inhomogeneous linear equations for the expansion coefficients by methods expounded elsewhere (Z.S.Agranovich, V.A.Marchenko and V.P. Shestopalov, ZhTF,32,No.4,1962; A.I.Adonina and V.P.Shestopalov, Ibid.33,No.6,1963). This transformation involves the solution of what the authors call an inhomogeneous conjugation problem: to find two functions, one analytic inside the unit circle and one analytic outside it, such that their difference vanishes on an arc of the unit circle and their sum assumes preassigned values on the remaining portion of the circle. The resulting system of linear equations for the expansion coefficients is convergent and can be solved approximately with an electronic computer. No numerical results are given. In the long wavelength limit, the equations for the expansion coefficients can be solved analytically to obtain "equivalent boundary conditions" for the diffracting structure. These conditions are obtained. When the dielectric constant and permeability are unity and the reflector is removed to infinity, these equivalent boundary conditions reduce to those previously obtained for a plane grating by N.N.Smirmov (ZhTF,28,No.7,1958). Orig.art.has: 29 formulas.

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ASSOCIATION.: Khar'kovskiy gosudarstvennyy universitet (Khar'kov State University)

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